

**UMTRA Ground Water Project
LTSM Program
Moab Project**

FY 2003 Sampling Frequencies and Analyses

October 2002

UMTRA Ground Water Project
LTSM Program
Moab Project

FY 2003 Sampling Frequencies and Analyses

**Sampling Frequencies for Locations
at Individual UMTRA, LTSM, and Moab Sites**

<p align="center">Sampling Frequencies for Locations at Ambrosia Lake, New Mexico</p>
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Wells	Quarterly	Semiannually	Annually	Triennially	Not Sampled	Notes
<i>LTSM Program Monitor Wells</i>						
675				X		Sampled every 3 years by a subcontractor. Next in 11/2004
678				X		Sampled every 3 years by a subcontractor. Next in 11/2004

<p align="center">Sampling Frequencies for Locations at ARCO-Bluewater, New Mexico</p>

Wells	Quarterly	Semiannually	Annually	Triennially	Not Sampled	Notes
LTSM Program Monitor Wells						
E(M)			X			Sampled by a local subcontractor
Y2(M)			X			Sampled by a local subcontractor
F(M)			X			Sampled by a local subcontractor
T(M)			X			Sampled by a local subcontractor
X(M)			X			Sampled by a local subcontractor if standards exceeded at POC well. See LTSP.
L(SG)				X		Sampled by a local subcontractor
S(SG)				X		Sampled by a local subcontractor
OBS-3				X		Sampled by a local subcontractor
1(SG)				X		Sampled by a local subcontractor if standards exceeded at POC well. See LTSP.

<p align="center">Sampling Frequencies for Locations at Burrell, Pennsylvania</p>
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Wells	Quarterly	Semiannually	Annually	Biennially	Every 5 Years	Notes
<i>LTSM Program Monitor Wells</i>						
420					X	Next in October 2006
422					X	Next in October 2006
423					X	Next in October 2006
424					X	Next in October 2006
520					X	Next in October 2006
522					X	Next in October 2006
523					X	Next in October 2006
524					X	Next in October 2006
<i>LTSM Program Surface Locations</i>						
611					X	SEEP on cell; next in October 2006
612					X	SEEP on cell; next in October 2006

<p align="center">Sampling Frequencies for Locations at Canonsburg, Pennsylvania</p>

Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
<i>LTSM Program Monitor Wells</i>						
406A			X			Replaces destroyed well 406
410			X			
412			X			
413			X			
414A			X			
424			X			
504					X	WL only
505					X	WL only
<i>LTSM Program Surface Locations</i>						
601			X			
602			X			
603			X			

Sampling conducted in October

<p align="center">Sampling Frequencies for Locations at Durango, Colorado</p>
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Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Ground Water Project Monitor Wells						
<i>DUR01 Mill Tailings</i>						
612			X			
617			X			
630			X			
631			X			
633			X			
634			X			
635			X			
<i>DUR02 Raffinate Pond</i>						
598			X			
607			X			
879			X			
880			X			
884			X			
Ground Water Project Surface Locations						
<i>DUR01 Mill Tailings</i>						
584			X			
586			X			
652			X			RIVER
691			X			RIVER
<i>DUR02 Raffinate Pond</i>						
588			X			
654			X			RIVER
656			X			
LTSM Program Monitor Wells						
<i>DUR03 Bodo Canyon</i>						
605			X			
607			X			POC WELL
608			X			"
612			X			"
618			X			"; supplements 608
621			X			"
623			X			BACKGROUND
MW-1					X	Download datalogger
NVP					X	Download datalogger
P7					X	Download datalogger

Sampling conducted in June

<p align="center">Sampling Frequencies for Locations at Falls City, Texas</p>
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Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
<i>LTSM Program Monitor Wells</i>						
709		X				
858		X				
862			X			In April
880		X				
886			X			In April
891			X			In April
906		X				Download data logger
908		X				
916		X				
921		X				
924			X			In April
963			X			In April

Sampling conducted in April and October

<p align="center">Sampling Frequencies for Locations at Grand Junction Mill Site</p>

Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
LTSM Program Monitor Wells						
590		X				
745		X				
1001		X				
1014		X				
LTSM Program Surface Locations						
423		X				
427		X				

Sampling conducted in January and June

<p align="center">Sampling Frequencies for Locations at Grand Junction Disposal Cell</p>

Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
<i>LTSM Program Monitor Wells</i>						
731		X				
732		X				
733		X				

Data loggers are downloaded by LTSM Program monthly.
Sampling conducted in February and August

<p align="center">Sampling Frequencies for Locations at Grand Junction Office Facility</p>

Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
LTSM Program Monitor Wells						
8-4S			X			
11-1S			X			
6-2N			X			
14-13NA			X			
GJ84-04			X			
GJ-01-01			X			
GJ-01-02			X			
10-19N			X			
LTSM Program Surface Locations						
Upper Middle Gunnison			X			
Lower Gunnison			X			
South Pond			X			
North Pond			X			
Wetland Area			X			
East Wetland Area			X			

Sampling conducted in January

<p align="center">Sampling Frequencies for Locations at Green River, Utah</p>
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Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Ground Water Project Monitor Wells						
174			X			
175			X			
176			X			
177			X			
178			X			
179			X			DATA LOGGER
180			X			
181			X			
182			X			
183			X			
184			X			
185			X			
186			X			
187			X			
188			X			
189			X			
190			X			
191			X			
193			X			
194			X			
561			X			
582			X			
583			X			
584			X			
585			X			
588			X			
707			X			
806			X			
810			X			
811			X			
817			X			
Ground Water Project Surface Locations						
526			X			
709			X			
710			X			
711			X			
718			X			
720			X			
801			X			
802			X			
LTSM Program Monitor Wells						
171	X					DATA LOGGER
172	X					DATA LOGGER
173	X					DATA LOGGER
813	X					

UGW sampling conducted in June

<p align="center">Sampling Frequencies for Locations at Gunnison, Colorado</p>

Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Ground Water Project Monitor Wells						
<i>GUN01</i>						
006			X			
012			X			
013			X			DATA LOGGER
106			X			
112			X			
113			X			DATA LOGGER
126			X			Sample before flood irrigation end of Apr
127			X			Sample before flood irrigation end of Apr
160			X			
161			X			DATA LOGGER
183			X			
188			X			DATA LOGGER
189			X			DATA LOGGER
Ground Water Project Surface Locations						
777			X			
780			X			
792			X			
795			X			
Ground Water Project Domestic Wells						
468			X			
469			X			
665			X			
667			X			
680			X			
683			X			
685			X			

UGW sampling needs to be conducted in April before flood irrigation starts

<p align="center">Sampling Frequencies for Locations at Gunnison, Colorado</p>

Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
LTSM Program Monitor Wells						
<i>GUN08</i>						
609			X after 5/15			BKGD; next in 2006
630					X	WLs ONLY; next in 2006
634					X	WLs ONLY; next in 2006
663					X	WLs ONLY; next in 2006
709					X	WLs ONLY; next in 2006
710					X	WLs ONLY; next in 2006
712					X	WLs ONLY; next in 2006
714					X	WLs ONLY; next in 2006
715					X	WLs ONLY; next in 2006
716			X after 5/15			BKGD; next in 2006
720			X after 5/15			POC; next in 2006
721			X after 5/15			POC; next in 2006
722			X after 5/15			POC; next in 2006
723			X after 5/15			POC; next in 2006
724			X after 5/15			POC; next in 2006
725			X after 5/15			POC; next in 2006

LTSM sampling at the disposal cell must not be conducted before May 15th due to CDOW requirements regarding access to this site during Sage Grouse mating.

<p align="center">Sampling Frequencies for Locations at Hallam, Nebraska</p>

Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
LTSM Program Monitor Wells						
OBS1A			X			
OBS1B			X			
OBS2A			X			
OBS2B			X			
OBS2B2			X			
OBS2C2			X			
OBS3A			X			
OBS3B			X			
OBS4A			X			
OBS4B			X			
OBS4C			X			
OBS5A			X			
OBS5B			X			
OBS6A					X	Water level; micropurge if possible
OBS6B					X	Water level; micropurge if possible
OBS7B			X			
OBS7C			X			
OBS8B			X			
OBS8C			X			

Sampling conducted in June

<p align="center">Sampling Frequencies for Locations at Lakeview, Oregon</p>

Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Ground Water Project Monitor Wells						
501					X	Every 2 years
503					X	
504					X	
505					X	
506					X	
507					X	
508					X	
509					X	
510					X	
518					X	
523					X	
524					X	
540					X	
541					X	
Ground Water Project Private Wells						
533					X	
534					X	
535					X	
536					X	
537					X	
538					X	
542					X	
543					X	
544					X	
545					X	
546					X	
547					X	
548					X	
549					X	
550					X	
557					X	Fairgrounds well
558					X	Spigot water for city
559					X	Best Western tap
560					X	Dorothy Allin well
Ground Water Project Surface Locations						
605					X	
607					X	
608					X	
609					X	
622					X	

<p align="center">Sampling Frequencies for Locations at Lakeview, Oregon</p>

Wells	Quarterly	Semiannually	Annually	Biennially	Every 5 years	Notes
LTSM Program Monitor Wells						
515					X	Every 5 years; next in 3/04
602					X	Every 5 years; next in 3/04
603					X	Every 5 years; next in 3/04
604					X	Every 5 years; next in 3/04
605					X	Every 5 years; next in 3/04
606					X	Every 5 years; next in 3/04
607					X	Every 5 years; next in 3/04
608					X	Every 5 years; next in 3/04
609					X	Every 5 years; next in 3/04

Sampling conducted in March

<p align="center">Sampling Frequencies for Locations at L-BAR, New Mexico</p>
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Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
LTSM Program Monitor Wells						
MW-1A					X	
MW-17B					X	
MW-29A					X	
MW-61					X	
MW-62					X	
MW-63					X	
MW-69					X	
MW-72					X	
MW-81					X	
MW-100					X	Only if notable seepage is observed in MW-62, -62, -63, or if ACL is exceeded in POC well.

Not transferred yet to LTSM.

<p align="center">Sampling Frequencies for Locations at Lowman, Idaho</p>
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Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
LTSM Program Monitor Wells						
548			X			Poss. Cross gradient
549			X			Poss. Cross gradient
575			X			Poss. Cross gradient
580			X			Poss. Cross gradient
583			X			Upgradient
641			X			Upgradient
LTSM Program Surface Locations						
561			X			SEEP

Sampling conducted in July

<p align="center">Sampling Frequencies for Locations at Maybell, Colorado</p>
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Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
<i>LTSM Program Monitor Wells</i>						
601					X	Download data logger; WLS
676					X	Download data logger; WLS
695					X	Download data logger; WLS
696					X	Download data logger; WLS

<p align="center">Sampling Frequencies for Locations at Mexican Hat, Utah</p>
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Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
<i>LTSM Program Surface Locations</i>						
248			X			MEASURE FLOW RATES
251			X			"
254			X			"
261			X			"
264			X			Replaced 249 "
922			X			"

Sampling conducted in February

**Sampling Frequencies for Locations at
Moab, Utah**

Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Monitor Wells						
400					X	Data logger; only
401					X	Water level only
402					X	Water level only
403					X	Water level only
404					X	Water level only
405					X	Water level only
406					X	Water level; data logger
407					X	Water level only
408					X	Water level only
409					X	Water level only
410	X					
411	X					
412	X					
413	X					
414	X					
430	X					
431	X					
432	X					
433	X					
434	X					
435	X					
436	X					
437	X					Vibrating wire piezometer location #452
438	X					
439	X					Vibrating wire piezometer location #451
440	X					
442	X					
443	X					
444	X					
445	X					
AMM-1	X					
AMM-2	X					
AMM-3	X					
ATP-3					X	Water level only
MW-1-R					X	Water level only
MW-3	X					
NE-MILL					X	Water level only
OW-1					X	Water level only
OW-2					X	Water level only
OW-3					X	Water level only
OW-4					X	Water level only
PW-1					X	Water level only
PW-10	X					
PW-11					X	Water level only
PW-12					X	Water level only
PW-13	X					
PW-4					X	Water level only
PW-4-0B-A					X	Water level only
PW-4-0B-B					X	Water level only
PW-5					X	Water level only

<p align="center">Sampling Frequencies for Locations at Moab, Utah</p>

Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Monitor Wells						
PW-6					X	Water level only
PW-7					X	Water level only
PW-8	X					
PW-9					X	Water level only
RW-01	X					
SMI-MW01					X	Water level; data logger
SMI-PW01					X	Water level; data logger
SMI-PW02					X	Water level; data logger
SMI-PW03					X	Water level; data logger
TP-01	X					
TP-02	X					
TP-06					X	Water level only
TP-07	X					
TP-08	X					
TP-09	X					
TP-11					X	Water level only
TP-17					X	Water level only
TP-18					X	Water level only
TP-19					X	Water level only
TP-20					X	Water level only
TP-21					X	Water level only
Piezometers						
A-1					X	Water level only
ATP-1-D					X	Water level only
ATP-1-ID					X	Water level only
ATP-1-IS					X	Water level only
ATP-1-S					X	Water level only
ATP-2-D					X	Water level only
ATP-2-S	X					
B-16					X	Water level only
B-28					X	Water level only
SMI-PZ1D					X	Data logger only
SMI-PZ1D2					X	Water level only
SMI-PZ1M					X	Water level; data logger
SMI-PZ1S					X	Water level; data logger
SMI-PZ2D					X	Water level; data logger
SMI-PZ2M1					X	Water level; data logger
SMI-PZ2M2					X	Water level; data logger
SMI-PZ3S	X					Data logger
SMI-PZ3M	X					Data logger
SMI-PZ3D2	X					Data logger
TH-25					X	Water level only

<p align="center">Sampling Frequencies for Locations at Moab, Utah</p>

Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Surface Locations						
CR1	X					Most upgradient point
CR2	X					Sample near shore
CR2-001	X					In main channel out from CR2 at bottom
CR3	X					Sample near shore
CR3-001	X					In main channel out from CR3 at bottom
CR4	X					
CR5	X					
CRA	X					
CR2B	X					Sample near shore
CR2B-001	X					In main channel out from CRB at bottom
CRC	X					
CRD	X					
CRE	X					
201	X					Most downgradient point

Sampling Conducted in December, March, June, and September

<p align="center">Sampling Frequencies for Locations at Monument Valley, Arizona</p>

Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Ground Water Project Monitor Wells						
400					X	
402					X	
403					X	
602					X	
604					X	
606					X	
619					X	
655					X	
656					X	
657					X	
662					X	
669					X	
760					X	
761					X	
762					X	
764					X	
765					X	
767					X	
768					X	
770					X	
771					X	
772					X	
774					X	
775					X	
776					X	
777					X	
Ground Water Project Private Wells						
200					X	
201					X	IHS water supply well
625					X	
640					X	

Sampling conducted in August

<p align="center">Sampling Frequencies for Locations at Naturita, Colorado</p>

Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Ground Water Project Monitor Wells						
547		X				
548		X				
700		X				
701		X				
NAT01-1		X				
NAT02		X				
NAT03		X				
NAT04-1		X				
NAT06-1		X				
NAT08		X				
NAT11		X				
NAT15-1		X				
NAT16-1		X				
NAT19		X				
NAT20		X				
NAT23		X				
NAT24		X				
NAT25		X				
NAT26		X				
NAT27-1		X				
NAT30-1		X				
MAU03		X				
MAU04		X				
MAU05		X				
MAU06		X				
MAU07		X				
MAU08		X				
DM1		X				
Ground Water Project Surface Locations						
531		X				
556		X				
560		X				
561		X				
567		X				
SM2		X				
SM4		X				
LSTM Program Monitor Wells						
NAT14						
BR95-1				Even year		Sample in November 2004
BR95-2				Even year		Sample in November 2004
BR95-3				Even year		Sample in November 2004

UGW sampling conducted in January and July
LTSM sampling conducted in November

<p align="center">Sampling Frequencies for Locations at Parkersburg, West Virginia</p>

Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
LTSM Program Monitor Wells						
MW-1					X	Water levels only; next sampling 10/03
MW-2					X	Water levels only; next sampling 10/03
MW-3					X	Water levels only; next sampling 10/03
MW-4					X	Water levels only; next sampling 10/03
MW-5				X		Next sampling 10/03
MW-6				X		Next sampling 10/03

Sampling conducted in October

<p align="center">Sampling Frequencies for Locations at Rifle, Colorado</p>
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Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Ground Water Project Monitor Wells						
<i>New Rifle</i>						
169			X			
170			X			Mo, NO ₃ , and U ONLY
172			X			Mo, NO ₃ , and U ONLY
173			X			
179			X			NO ₃ , and U ONLY
195			X			
201			X			
210			X			Mo, NO ₃ , and U ONLY
215			X			
216			X			
218			X			
590			X			
635			X			
657			X			
658			X			
659			X			
855			X			
864			X			
<i>Old Rifle</i>						
292			X			
304			X			
305			X			
309			X			
310			X			
655			X			
656			X			
Ground Water Project Private Wells						
<i>New Rifle</i>						
442			X			Johnson - sample at wellhead
446			X			Johnson - after the RO unit
617			X			Ideal Cement before RO unit
685			X			Ideal Cement after RO unit
Ground Water Project Surface Locations						
<i>New Rifle</i>						
320			X			Pond
322			X			
452			X			
453			X			
575			X			
<i>Old Rifle</i>						
396			X			
398			X			
538			X			
741			X			
LSTM Program Disposal Cell						
RFL08						
MW-2					X	WL only - MONTHLY
MW-3					X	WL only - MONTHLY

Sampling conducted in June

<p align="center">Sampling Frequencies for Locations at Riverton, Wyoming</p>
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Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Ground Water Project Monitor Wells						
705			X			
707			X			Data logger
709					X	Data logger
710			X			
716			X			Data logger
717			X			
718			X			
719			X			
722			X			
723			X			
731			X			
735			X			
789					X	Data logger
Ground Water Project Surface Locations						
747			X			
749			X			
794			X			
796			X			

Sampling conducted in May

<p align="center">Sampling Frequencies for Locations at Salt Lake City, Utah</p>

Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
LTSM Program Monitor Wells						
134			X			Shallow aquifer; downgradient
143					X	Deep aquifer; WL only
144			X			Shallow aquifer; onsite
145					X	Deep aquifer; WL only
LTSM Program Surface Locations						
146			X			Open ditch onsite
148			X			Pond west of CVWRF
149			X			Pond southwest of CVWRF
150			X			Pond south of CVWRF
151			X			Pond south of CVWRF
181			X			Mill Creek - upstream
182			X			Mill Creek - downstream

Sampling conducted in December

<p align="center">Sampling Frequencies for Locations at Sherwood, WA</p>

Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
<i>LTSM Program Monitor Wells</i>						
MW-2B			X			
MW-4			X			
MW-10			X			
P1					X	Water level only
P2					X	Water level only
P3					X	Water level only
P4					X	Water level only

Sampling conducted in July

<p align="center">Sampling Frequencies for Locations at Shiprock, New Mexico</p>

Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Ground Water Project Monitor Wells						
SHP01						
608		X				Low flow
614		X				Low flow
615		X				Low flow
617					X	Data logger only
618		X				Low flow
619		X				Low flow
734		X				Low flow
735		X				Low flow
736		X				Low flow
797		X				Low flow
850		X				Low flow
854		X				Low flow
857					X	Data logger only
SHP02						
602					X	Data logger only
648				Odd year		Measure flow rate semiannually; sample biennially
728					X	WLs quarterly; data logger
730					X	Data logger only
731					X	Data logger only
800					X	Water levels only; in March
801					X	Water levels only; in March
802					X	Water levels only; in March
803					X	Water levels only; in March
812		X				Low flow; WLs quarterly
813		X				Low flow; WLs quarterly
814					X	WL quarterly only
815					X	WL quarterly only
817		X				Low flow
818					X	WL quarterly only
826					X	Data logger only
827					X	Data logger only
830					X	Data logger only
832		X				Low flow
835		X				Low flow
836		X				Low flow
837					X	Data logger only
838		X				Low flow
839		X				Low flow
841		X				Low flow; data logger; WL quarterl

<p align="center">Sampling Frequencies for Locations at Shiprock, New Mexico</p>

Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
SHP02						
843					X	Data logger only
846		X				Low flow
847		X				Low flow
848					X	Data logger only
1007					X	WL quarterly only
1057					X	WL quarterly only
1060		X				Low flow
1065					X	WL only; Many Devils Wash
1066					X	WL only; Many Devils Wash
1067					X	WL only; Bob Lee Wash
1068					X	WL only; Bob Lee Wash
1069					X	WL only; Bob Lee Wash
Ground Water Project Surface Locations						
SHP01						
655		X				Drainage channel
887		X				Distributary channel
897		X				Just below mouth of Many Devils Wash
898		X				San Juan River upgradient
940		X				Just NE of 854, San Juan River
956		X				San Juan River at intake
957		X				San Juan River about 1500' below dist. Channel
959		X				Distributary channel just below 1st wash
1205		X				San Juan River E of well 853
SHP02						
425		X				Escarpment Seep; flow rate
426		X				Escarpment Seep; flow rate
662		X				Lower Bob Lee Wash
786		X				Seep below US Hwy 666 bridge
884		X				Irrigation return flow
885		X				Upper Bob Lee Wash; water level
886		X				Many Devils Wash; water level
889		X				Many Devils Wash; water level
933		X				1st wash W of Highway 666
934		X				2nd wash W of Highway 666
936		X				Seep between 1st & 2nd washes
942		X				Pond NW of 847
958				Odd year		Helium lateral canal where water comes into canal at pump station

Sampling conducted in March and September

<p align="center">Sampling Frequencies for Locations at Slick Rock, Colorado</p>

Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Ground Water Project Monitor Wells						
Union Carbide						
317			X			
318			X			
319			X			
320			X			
324			X			
508			X			
510			X			
North Continent						
303			X			
305			X			
307			X			
309			X			
311			X			
Ground Water Project Surface Locations						
Union Carbide						
347			X			
349			X			
693			X			
694			X			
North Continent						
692			X			
696			X			

Sampling conducted in September

<p align="center">Sampling Frequencies for Locations at Tuba City, Arizona</p>

Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Ground Water Project Monitor Wells						
251		X				
252		X				
254		X				
255		X				
256		X				
257		X				
258					X	Water level only
261			X			
262			X			
263			X			
264			X			
265			X			
266			X			
267		X				
268		X				
271		X				
683		X				
684		X				
685		X				
686		X				
687		X				
688		X				
689		X				
690		X				
691		X				
692		X				
695		X				
901			X			
902					X	Water level only
903		X				
904				Odd year		
905					X	Water level only
906		X				
907					X	Water level only
908		X				
909		X				DATA LOGGER
910					X	Water level only
911					X	Water level only
912			X			
913			X			
914			X			
915				Odd year		
916				Odd year		
917				Odd year		
918					X	Water level only
919					X	Water level only
920				Odd year		
921				Odd year		
925					X	Water level only
926					X	Water level only
928					X	Water level only

<p align="center">Sampling Frequencies for Locations at Tuba City, Arizona</p>

Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Ground Water Project Monitor Wells						
929		X				
930		X				
932		X				
933					X	Water level only
934		X				DATA LOGGER
935		X				
936		X				
938					X	Water level only
939					X	Water level only
940		X				DATA LOGGER
941		X				DATA LOGGER
942		X				DATA LOGGER
943		X				
945		X				
946		X				Dry well; NEEDS DATA LOGGER
947				Even year		Dry well; March 2002
948					X	Water level only
968					X	Water level only
970					X	Water level only
971					X	Water level only
972					X	Water level only
1003		X				
1004		X				
1005		X				
1006		X				
1007		X				
1008		X				
1101		X				
1102		X				
1103		X				
1104		X				
1105		X				
1106		X				
1107		X				
1108		X				
1109		X				
1110		X				
1111		X				
1112		X				
1113		X				
1114		X				
1115		X				
1116		X				
1117		X				
1118		X				
1119		X				
1120		X				
1121		X				
1122		X				
1123		X				
1124		X				
1125		X				

<p align="center">Sampling Frequencies for Locations at Tuba City, Arizona</p>

Wells	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Ground Water Project Surface Locations						
759				Even year		In March 2002
778				Even year		In March 2002
965				Even year		In March 2002
969				Odd year		In March 2003
1569		X				North evap pond
1570		X				South evap pond
1571		X				Jimmy Spr West
1572		X				Jimmy Spr East
1573		X				West pipe Shonto Well
1574		X				East pipe Shonto Well
1200		X				N. sump leachate
1201		X				S. sump leachate
1202		X				Soft water feed tank
1203		X				Effluent from Ion Exchange Column
1204		X				Effluent from degassifier
1205		X				Distillate from evaporator
1206		X				Brine from evaporator
1207		X				Regeneration waster (beginning of cycle)
1208		X				Regeneration waster (end of cycle)

Sampling conducted in February and August

**Constituent Sampling Breakdown
for Individual UMTRA, LTSM, and Moab Sites**

Constituent Sampling Breakdown For Individual Sites

Site	Ambrosia Lake		ARCO/Bluewater		Burrell		Canonsburg		Durango		
Analyte	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water	Surface Water
Approx. No. Samples/yr	0	0	0	0	0	0	6	3	12	7	7
Field Measurements	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	UGW	LTSM	UGW
Alkalinity	X				X	X	X	X	X	X	X
Dissolved Oxygen											
Redox Potential	X				X	X	X	X	X	X	X
pH	X				X	X	X	X	X	X	X
Specific Conductance	X				X	X	X	X	X	X	X
Turbidity	X				X		X		X	X	
Temperature	X				X	X	X	X	X	X	X
Laboratory Measurements	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	UGW	LTSM	UGW
Aluminum											
Ammonium											
Antimony											
Arsenic											
Beryllium											
Bromide											
Cadmium									612, 617, 630, 631, 633, 634, 635 only		X
Calcium					X	X	X	X		X	
Chloride					X	X	X	X		X	
Chromium											
Cobalt											
Copper											
Fluoride											
Gamma Spec											
Gross Alpha											
Gross Beta											
Iron					X	X				X	
Lead					X	X			612, 617, 630, 631, 633, 634, 635 only		
Lead-210											
Magnesium					X	X	X	X		X	
Manganese					X	X	X	X	612, 617, 630, 631, 633, 634, 635 only	X	
Molybdenum	X				X	X	X	X	X	X	X

**Constituent Sampling Breakdown
For Individual Sites**

Site	Ambrosia Lake		ARCO/Bluewater		Burrell		Canonsburg		Durango		
Analyte	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water	Surface Water
Laboratory Measurements (Continued)	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	UGW	LTSM	UGW
Nickel											
Nickel-63											
Nitrate	X				X	X					
PCBs			X								
Phosphate											
Polonium-210											
Potassium					X	X	X	X		X	
Radium-226											
Radium-228											
Selenium	X				X	X			X	X	X
Silica											
Sodium					X	X	X	X		X	
Strontium											
Sulfate	X				X	X	X	X	612, 617, 630, 631, 633, 634, 635 only	X	
Sulfide											
Thallium											
Thorium-230											
Tin											
Total Dissolved Solids			X		X	X				X	
Total Organic Carbon											
Uranium	X				X	X	X	X	X	X	X
Vanadium											
Zinc											
Total No. of Analytes	5	0	2	0	14	14	9	9	7	12	4

Note: All analyte samples are considered filtered unless stated otherwise. All private well samples are to be unfiltered. The total number of analytes does not include field parameters.

Constituent Sampling Breakdown For Individual Sites

Site	Falls City		GJT-Millsite		GRJ-Disposal Cell		GJO-Office Facility		Green River		
Analyte	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water	Surface Water
Approx No. Samples/yr	19	0	8	4	6	0	8	6	31	16	8
Field Measurements	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	UGW	LTSM	UGW
Alkalinity	X		X	X	X		X		X	X	X
Dissolved Oxygen											
Redox Potential	X		X	X	X		X	X	X	X	X
pH	X		X	X	X		X	X	X	X	X
Specific Conductance	X		X	X	X		X	X	X	X	X
Turbidity	X		X		X		X		X	X	
Temperature	X		X	X	X		X	X	X	X	X
Laboratory Measurements	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	UGW	LTSM	UGW
Aluminum	X										
Ammonium	X		X	X							
Antimony	X										
Arsenic	X						X	X	X	X	X
Beryllium	X										
Bromide	X										
Cadmium	X								X	X	X
Calcium	X								X	X	X
Chloride	X						X	X	X	X	X
Chromium	X						X	X			
Cobalt	X										
Copper	X										
Fluoride									X	X	X
Gamma Spec											
Gross Alpha	X						X	X	X	X	X
Gross Beta											
Iron	X										
Lead	X										
Lead-210									X	X	X
Magnesium	X								X	X	X
Manganese	X						X	X	X	X	X
Molybdenum	X		X	X	X		X	X	X	X	X

Constituent Sampling Breakdown For Individual Sites

Site	Falls City		Grand Junction		GRJ-Disposal Cell		GJO-Office Facility		Green River		
Analyte	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water	Surface Water
Laboratory Measurements (Continued)	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	UGW	LTSM	UGW
Nickel	X										
Nickel-63											
Nitrate	X				X		X	X	X	X	X
PCBs					X						
Phosphate											
Polonium-210											
Potassium	X								X	X	X
Radium-226	X								X	X	X
Radium-228	X								X	X	X
Selenium	X				X		X	X	X	X	X
Silica											
Sodium	X								X	X	X
Strontium									X	X	X
Sulfate	X				X		X	X	X	X	X
Sulfide	X										
Thallium	X										
Thorium-230									X	X	X
Tin	X										
Total Dissolved Solids	X		X	X	X		X	X	X	X	X
Total Organic Carbon											
Uranium	X		X	X	X		X	X	X	X	X
Uranium-234, -238											
Vanadium	X				X				X	X	X
VOCs											
Zinc	X										
Total No. of Analytes	33	0	4	4	8	0	11	11	22	22	22

Note: All analyte samples are considered filtered unless stated otherwise. All private well samples are to be unfiltered. The total number of analytes does not include the field parameters.

Constituent Sampling Breakdown For Individual Sites

Site	Gunnison			Hallam		Lakeview			L-Bar		Lowman	
Analyte	Ground Water		Surface Water	Ground Water	Surface Water	Ground Water		Surface Water	Ground Water	Surface Water	Ground Water	Surface Water
Approx. No. Samples/yr.	20	0	4	17	0	0	0	0	0	0	6	1
Field Measurements	UGW	LTSM	UGW	LTSM	LTSM	UGW	LTSM	UGW	LTSM	LTSM	LTSM	LTSM
Alkalinity	X	X	X	X		X	X	X			X	X
Dissolved Oxygen												
Redox Potential	X	X	X	X		X	X	X			X	X
pH	X	X	X	X		X	X	X	X		X	X
Specific Conductance	X	X	X	X		X	X	X	X		X	X
Turbidity	X	X		X		X	X				X	
Temperature	X	X	X	X		X	X	X			X	X
Laboratory Measurement	UGW	LTSM	UGW	LTSM	LTSM	UGW	LTSM	UGW	LTSM	LTSM	LTSM	LTSM
Aluminum												
Ammonium												
Antimony											X	X
Arsenic						X	X	X				
Boron						X		X				
Beryllium												
Bromide												
Cadmium							X					
Calcium						X	X	X			X	X
Chloride						X	X	X	X		X	X
Chromium												
Cobalt												
Copper												
Fluoride						X		X				
Gamma Spec				X								
Gross Alpha				X								
Gross Beta				X								
Iron						X	X	X			X	X
Lead												
Lead-210												
Magnesium						X	X	X			X	X
Manganese	X		X			X	X	X			X	X
Molybdenum						X		X				

Constituent Sampling Breakdown For Individual Sites

Site	Gunnison		Hallam		Lakeview		L-Bar		Lowman	
Analyte	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water
<i>Laboratory Measurements (Continued)</i>	<i>UGW</i>	<i>LTSM</i>	<i>UGW</i>	<i>LTSM</i>	<i>UGW</i>	<i>LTSM</i>	<i>UGW</i>	<i>LTSM</i>	<i>LTSM</i>	<i>LTSM</i>
Nickel					X		X			
Nickel-63			X							
Nitrate							X			
PCBs										
Phosphate										
Polonium-210										
Potassium					X	X	X		X	X
Radium-226										
Radium-228										
Selenium							X			
Silica						X				
Sodium					X	X	X		X	X
Strontium										
Sulfate	X		X		X	X	X		X	X
Sulfide					X		X			
Thallium										
Thorium-230										
Tin										
Total Dissolved Solids	X		X		X	X	X		X	X
Total Organic Carbon					X		X			
Tritium			X							
Uranium	X	X	X		X	X	X			
Uranium-234, -238										
Vanadium										
Zinc										
Total Analytes	4	1	4	5	17	13	17	6	0	10

Note: All analyte samples are considered filtered unless stated otherwise. All private well samples are to be unfiltered. The total number of analytes does not include the field parameters.

Constituent Sampling Breakdown For Individual Sites

Site	Mexican Hat		Monument Valley		Naturita				Rifle (2)				Riverton	
Analyte	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water
Approx. No. Samples/yr	0	6	0	0	56	0	14	0	28	9	11	4		
Field Measurements	LTSM	LTSM	UGW	UGW	UGW	LTSM	UGW	LTSM	UGW	UGW	UGW	UGW	UGW	UGW
Alkalinity	X	X	X		X	X	X		X	X	X	X	X	X
Dissolved Oxygen														
Redox Potential	X	X	X		X	X	X		X	X	X	X	X	X
pH	X	X	X		X	X	X		X	X	X	X	X	X
Specific Conductance	X	X	X		X	X	X		X	X	X	X	X	X
Turbidity	X		X		X				X		X			
Temperature	X	X	X		X	X	X		X	X	X	X	X	X
Laboratory Measuremen	LTSM	LTSM	UGW	UGW	UGW	LTSM	UGW	LTSM	RFO	RFN	RFO	RFN	UGW	UGW
Aluminum														
Ammonium		X	606, 655, 656, 765, 770, 771, 772, 774, 777, 201							X		X		
Antimony														
Arsenic					X	X	X		X		X	X	X	X
Barium														
Bromide														
Cadmium			201 only											
Calcium		X	201 only											
Chloride		X	X											
Chromium														
Cobalt														
Copper														
Fluoride									X		X			
Gamma Spec														
Gross Alpha			201 only											
Gross Beta														
Iron														
Lead														
Lead-210			201 only											
Magnesium			201 only											
Manganese					X		X		X		X	X	X	X
Molybdenum		X			X	X	X		X		X	X	X	X

Constituent Sampling Breakdown For Individual Sites

Site	Mexican Hat		Monument Valley		Naturita				Rifle (2)				Riverton	
Analyte	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water
Laboratory Measurements (Continued)	LTSM	LTSM	UGW	UGW	UGW	LTSM	UGW	LTSM	RFO	RFN	RFO	RFN	UGW	UGW
Nickel													X	X
Nickel-63														
Nitrate		X	X		X		X			X		X		
Nitrite														
PCBs														
Phosphate														
Polonium-210														
Potassium		X	201 only											
Radium-226		X	201 only											
Radium-228		X	201 only											
Selenium			201 only		X		X		X	X	X	X		
Silica														
Sodium		X	201 only											
Strontium			201 only											
Sulfate		X	X		X		X						X	X
Sulfide														
Thallium														
Thorium-230														
Tin														
Total Dissolved Solids		X	201 only		X		X		X	X	X	X	X	X
Total Hardness														
Total Suspended Solids														
Uranium		X	201, 619, 657, 774, 775, and 776 only		X	X	X		X	X	X	X	X	X
Uranium-234, -238														
Vanadium		X	201 only		X		X		X	X	X	X		
Zinc							X							
Total Analytes	0	13	18	0	9	3	10	0	4	10	4	10	7	7

Note: All samples are considered filtered unless stated otherwise. All private well samples are to be unfiltered. The total number of analytes does not include field parameters.

**Constituent Sampling Breakdown
For Individual Sites**

Site	Salt Lake City		Sherwood		Shiprock		Slick Rock		Tuba City	
Analyte	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water
Approx. No. Samples/yr	2	7	3	0	47	43	12	6	150	13
Field Measurements	LTSM	LTSM	LTSM	LTSM	UGW	UGW	UGW	UGW	UGW	UGW
Alkalinity	X		X		X	X	X	X	X	X
Dissolved Oxygen										
Redox Potential	X		X		X	X	X	X	X	X
pH	X		X		X	X	X	X	X	X
Specific Conductance	X		X		X	X	X	X	X	X
Turbidity	X		X		X		X	X	X	
Temperature	X		X		X	X	X	X	X	X
Laboratory Measurements	LTSM	LTSM	LTSM	LTSM	UGW	UGW	UGW	UGW	UGW	UGW
Aluminum										
Ammonium					X	X			X	
Antimony										
Arsenic									X	X
Barium										
Beryllium										
Bromide										
BTEX							319			
Cadmium										1569, 1570, 1200, and 1201 only
Calcium					X	X			X	X
Chloride			X		X	X			X	X
Chromium										
Cobalt										
Copper										
Fluoride										
Gamma Spec										
Gross Alpha									X	X
Gross Beta										
Iron									X	X
Lead										1569, 1570, 1200, and 1201 only
Lead-210										
Magnesium					X	X			X	X
Manganese					X	X	318, 320, 508, 510	347, 349, 693, 694	X	X
Mercury										1569, 1570, 1200, and 1201 only
Molybdenum	X	X					317, 318, 320, 508, 510	347, 349, 693, 694	X	X

**Constituent Sampling Breakdown
For Individual Sites**

Site	Salt Lake City		Sherwood		Shiprock		Slick Rock (2)		Tuba City	
Analyte	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water	Ground Water	Surface Water
Laboratory Measurements (Continued)	LTSM	LTSM	LTSM	LTSM	UGW	UGW	UGW	UGW	UGW	UGW
Nickel										
Nickel-63										
Nitrate					X	X	318, 320, 324, 508, 510	347, 349, 693, 694	X	X
Organics										
PCBs										
Phosphate										
Polonium-210										
Potassium					X	X			X	X
Radium-226							319			
Radium-228							319			
Radon-222										
Selenium					X	X	305, 307, 318, 320, 324, 508, 510	347, 349, 693, 694	X	X
Silica									X	
Sodium					X	X			X	X
Strontium					X	X			X	X
Sulfate			X		X	X			X	X
Sulfide										
Thallium										
Thorium-230										
Thorium-232										
Tin										
Total Dissolved Solids			X						X	X
Total Organic Carbon										
Tritium										
Uranium	X	X			X	X	305, 308, 307, 309, 311, 318, 320, 508, 510	X all samples	X	X
Uranium-234, -238										X
Vanadium										
VOCs										
Zinc										
Total Analytes	2	2	3	0	12	12	8	5	18	20

Note: All samples are considered filtered unless stated otherwise. All private well samples are to be unfiltered. The total number of analytes does not include field parameters.

Constituent Sampling Breakdown

Site	Parkersburg	
Analyte	Ground Water	Surface Water
Approx. No. Samples/yr	0	0
Field Measurements	LTSM	LTSM
Alkalinity	X	
Dissolved Oxygen		
Redox Potential	X	
pH	X	
Specific Conductance	X	
Turbidity	X	
Temperature	X	
Laboratory Measurements	LTSM	LTSM
Aluminum		
Ammonium		
Antimony	X	
Arsenic		
Barium	X	
Beryllium	X	
Bromide		
Cadmium	X	
Calcium	X	
Chloride	X	
Chromium	X	
Cobalt		
Copper		
Fluoride		
Gross Alpha	X	
Gross Beta	X	
Hafnium	X	
Iron		
Lead	X	
Lead-210		
Magnesium	X	
Manganese		
Mercury	X	
Molybdenum		

Constituent Sampling Breakdown

Site	Parkersburg	
	Ground Water	Surface Water
Analyte		
<i>Laboratory Measurements (Continued)</i>	<i>LTSM</i>	<i>LTSM</i>
Nickel	X	
Nitrate	X	
Nitrite	X	
Phosphate		
Polonium-210		
Potassium	X	
Radium-226	X	
Radium-228	X	
Selenium	X	
Silica		
Sodium	X	
Strontium		
Sulfate	X	
Sulfide		
Thallium	X	
Thiocyanate	X	
Thorium-230		
Tin		
Total Dissolved Solids		
Total Organic Carbon		
Uranium	X	
Vanadium		
Zinc		
Zirconium	X	
Total Analytes	26	0

Note: All samples are considered filtered unless stated otherwise. All private well samples are to be unfiltered. The total number of analytes does not include field parameters.

Constituent Sampling Breakdown

Site	MOAB	
Analyte	Ground Water	Surface Water
Approx No. Samples/yr	148	56
Field Measurements		
Alkalinity	X	X
Dissolved Oxygen		
Redox Potential	X	X
pH	X	X
Specific Conductance	X	X
Turbidity	X	
Temperature	X	X
Laboratory Measurements		
Aluminum		
Ammonium	X	X
Antimony	X	X
Arsenic	X	X
Barium	X	X
Beryllium		
Bromide		
Cadmium	X	X
Calcium	X	X
Chloride	X	X
Chromium	X	X
Cobalt		
Copper	X	X
Fluoride		
Gamma Spec		
Gross Alpha	X	X
Gross Beta	X	X
Iron	X	X
Lead	X	X
Lead-210	X	X
Magnesium	X	X
Manganese	X	X
Mercury	X	X
Molybdenum	X	X

Site	MOAB	
Analyte	Ground Water	Surface Water
<i>Laboratory Measurements</i> (Continued)		
Nickel	X	X
Nickel-63		
Nitrate	X	X
PCBs		
Phosphate		
Polonium-210	X	X
Potassium	X	X
Radium-226	X	X
Radium-228	X	X
Selenium	X	X
Silica		
Silver	X	X
Sodium	X	X
Strontium	X	X
Sulfate	X	X
Sulfide		
Thallium	X	X
Thorium-230	X	X
Tin		
Total Dissolved Solids	X	X
Total Organic Carbon		
Uranium	X	X
Uranium-234, -238		
Vanadium	X	X
All Appendix IX listed constituents		
VOCs		
Zinc	X	X
Total No. of Analytes	36	35

Note: All analyte samples are considered filtered unless stated otherwise. The total number of analytes does not include the field parameters.